

# Work Order ID 55603

January 25, 2010 12:42:28 PM



Page 1

Item ID: D2438

Accept



Setup Start



Revision ID:

Stop



Item Name: Clamp

Start Date: 1/25/10 Start Qty: 100.00



Cust Item ID:

Required Date: 2/01/10 Req'd Qty: 100.00



Customer:

Reference:

Approvals:

Process Plan: *BA*

Date: *10-1-25*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2438

Rev C

100

0.00



Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: *11212* ☐ Laser cut as per Dwg D2438 ☐ Material release note is required

*BA 10-1-25*  
*(100)*

110

0.00



Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

0.00

Packaging

Ensure Material Release Note is attached

*Packaging* *(100)*

120

0.00



QC

QC6- Inspect dimensions to drawing

Memo

0.00

Quality Control

(6.786" center to center)

*510/02/17*

*QC6*  
*(400)*  
*QSP019*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 55603**

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Item ID: D2438

Accept



Setup Start



Revision ID:

Stop



Item Name: Clamp

Start Date: 1/25/10

Start Qty: 100.00



Cust Item ID:

Required Date: 2/01/10

Req'd Qty: 100.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130



Small Fab

Small Fab

Small Fab

Memo

Tumble &amp; Deburr any rough edges

0.00

0.00

M/4 S

140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

150



Packaging

Packaging

Identify as per dwg &amp; Stock Location: 462

Memo

0.00

0.00

Pc 10/2/15 (104)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

**Work Order ID 55603**

January 25, 2010 12:42:28 PM

Page 3

Item ID: D2438

Accept

Setup Start

Revision ID:

Stop

Item Name: Clamp

Start Date: 1/25/10

Start Qty: 100.00

Cust Item ID:

Required Date: 2/01/10

Req'd Qty: 100.00

Customer:

Reference:

Run Start

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/02/18  
ME  
10-2-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January 25, 2010 12:42:32 PM

Page 1

Work Order ID: 55603



Parent Item: D2438



Parent Item Name: Clamp



Start Date: 1/25/10

Required Date: 2/01/10

Comments: IPP: E05.06.28 Bending removed KJ/JLM

Start Qty: 100.00

Required Qty: 100.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2438B  Clamp		Purchased	No			110	Each	0.0000	100.0000 	<i>Pick 2/16</i>	<i>(100)</i>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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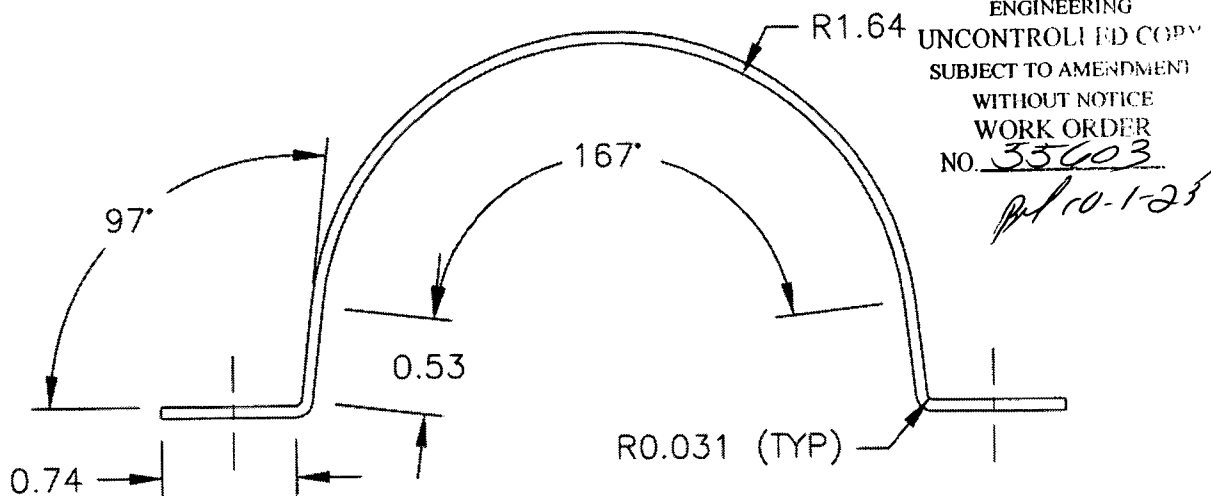
**NOTE:** Date & initial all entries



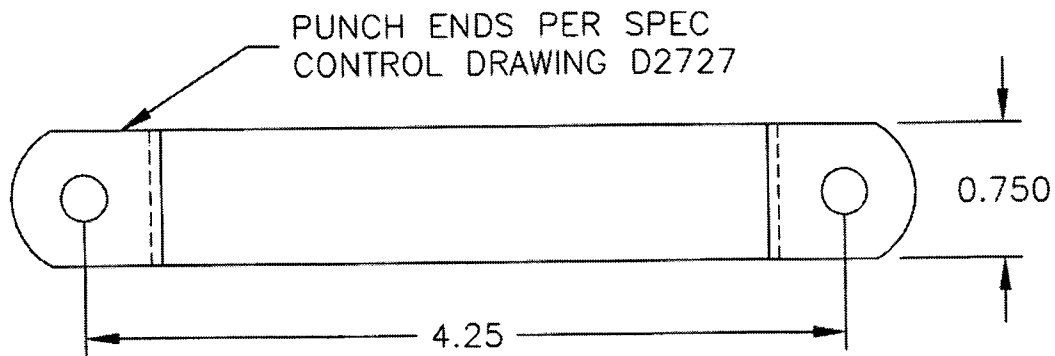


DESIGN <i>KE</i>	DRAWN BY <i>KE</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>MA</i>	APPROVED <i>MA</i>	DRAWING NO. D2438	REV. C SHEET 1 OF 1
DATE 98.05.12		TITLE CLAMP	SCALE 1:1
A	96.01.24	NEW ISSUE	
B	96.05.13	CHANGE LENGTH	
C	98.05.12	R1.64 WAS R1.438, CHANGE GEOMETRY	

RELEASED  
48.06.17 KE



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 35603  
*pl 10-1-25*



FLAT LENGTH: 7.586 END-END  
6.786 HOLE-HOLE

MATERIAL: AISI 304/316 SS 0.063 THICK  
MINIMUM REQUIREMENT IS ANNEALED CONDITION

# 00.06.06  
CP 00.06.07



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

\*\*\*PO REPRINT\*\*\*

Purchase Order ID PO11212

Purchase Order Date 1/25/10

PO Print Date 1/25/10

Page Number 1 of 1

Order From :

VC-GFI001

GFI  
180 AVENUE LABROSSE  
POINTE CLAIRE, QC H9R 1A1  
CA

Contact Name

Vendor Phone

514 630 4877

Vendor Fax

514 630 4849

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req. Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2438B	Clamp	2/12/10 Yes	100.00 Each	FedEx Overnight	\$10.0000	\$1,000.00

Special Inst: As per DWG D2438 REV; C  
B# 55603

PO Total:

\$1,000.00

PO Instructions: FEDEX acct# 1517 9324 0

Change Nbr: 2

Change Date: 1/25/10

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable



180 AVENUE LABROSSE  
POINT-CLAIRE, QC, CANADA H9R 1A1  
TÉL.: (514) 630-4877 - FAX: (514) 630-4849

GFI est une division de Thomas & Betts Fabrication Inc. / GFI is a division of Thomas & Betts Manufacturing Inc.



# BON DE LIVRAISON / SHIPPING MEMO

DATE DE LIVRAISON / SHIPPING DATE			N° DE BON DE LIVRAISON	PAGE
JR - DY	MO. - MO.	AN. - YR	SHIPPING MEMO NO.	
15	02	10	0432545	1/1



VI NDU À / SOLD TO

EXPÉDIÉ À / SHIP TO

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON  
K6A 1K7

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON  
K6A 1K7

CODE DE CLIENT CUSTOMER CODE		N° DE CONTRAT JOB NO.	VOTRE N° DE COMMANDE YOUR PURCHASE ORDER NO.	EXPÉDIÉ PAR SHIP VIA				
DART GFI-0299		0209697	PO11212					
QUANTITÉ QUANTITY	N° DE PIÈCE PART NO.		DESCRIPTION					
100	D2438B		CLAMP CUT&FORMED  CERTIFICATE OF CONFORMANCE REQ					
MFG. JOB # <u>JO209697-001</u> QTY <u>100</u>								
8/10/17								

EXPÉDITEUR  
SHIPPER

N° DE BON DE LIVRAISON  
SHIPPING MEMO NO.

REÇU PAR / RECEIVED BY

DATE

TOUTES LES RÉCLAMATIONS DOIVENT ÊTRE FAITES EN DEDANS DE 5 JOURS DE LA RÉCEPTION.  
ALL CLAIMS MUST BE MADE WITHIN 5 DAYS OF RECEIPT OF GOODS.



**CERTIFICATE OF COMPLIANCE  
CERTIFICAT DE CONFORMITE**



Membre de / A Member of **Thomas & Betts**

180 LABROSSE AVENUE  
POINTE CLAIRE, QC  
H9R 1A1

**DART AEROSPACE LTD**  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7

*5/6/12*

CERTIFICATE NO.	<u>24</u>	OUR JOB NO	<u>J0209697</u>	SHIPPING MEMO	<u>0432545</u>	
ITEM	QUANTITY	PURCHASE ORDER	PART NUMBER	REV	NAME	DWG ISSUE
<u>--</u>	<u>100 PCS</u>	<u>PO11212</u>	<u>D2438B</u>	<u>C</u>	<u>CLAMP</u>	<u>C</u>
MATERIAL		SUPPLIED BY		MAT. REL. NO.		
<u>S.S.T 304</u>		<u>TW METALS / NORTH AMERICAN</u>		<u>4WN7</u>		

	PROCESS	PROCESSOR	RELEASE NOTE #
1	<u>FIRST ARTICLE INSPECTION REPORT ON FILE</u>	<u>GFI</u>	<u>CONFORMS</u>
2	<u>REF. GFI MANUFACTURING JOB NUMBER J0209697-001 (100 PCS)</u>		
3			
4			
5			
6			
7			
8			
9			

WE HEREBY CERTIFY ALL THE PARTS COVERED BY THIS CERTIFICATE HAVE BEEN MANUFACTURED FROM MATERIAL SUPPLIED ON RELEASE NOTE SHOWN ABOVE AND THAT ALL PARTS HAVE BEEN INDIVIDUALLY INSPECTED AND CONFORM TO THE DRAWINGS AND PURCHASE ORDER REFERENCED ABOVE.

DATE 15 FEBRUARY 2010

G.F.I. Q.C. REP.

B. Samei



DP12-001 REV 0 Bombardier Certificate of Compliance  
TW Metals District Procedure

Revision 0

Revision Date 04-03-00

Superseding Initial

Page 1 of 1

## CERTIFICATE OF COMPLIANCE

## FRAUD AND FALSIFICATION STATEMENT

The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under federal statutes including federal law Title 18 chapter 47

## CERTIFICATE OF COMPLIANCE

This certificate of compliance certifies that the material supplied on the purchase order number below complies in all respects with the material description and procurement specifications

## MERCURY FREE STATEMENT

We certify that mercury radium or alpha bearing instruments and / or equipment which might cause contamination have not been used in the manufacture fabrication assembly or testing of any material supplied by TW Metals Inc. Switches glass thermometers standard cell and other items containing the above elements may be used, but they will be located so as not to constitute a contamination hazard

CUSTOMER NAME

GFI

PURCHASE ORDER No

0076358

ITEM No

0001

SHIPPER INVOICE No

03256173

MATERIAL

304-S/S Sheet

SPECIFICATION

ASTM A240

MANUFACTURING MILL

North American Stainless

SIZE

.0625"

HEAT / LOT No

4WN7

PART No

TS06348 X 964A

QUANTITY

2EA

TEST DEPARTMENT CLERK

Amy Davis

AUTHORITY

Joe Schab

Director of Quality Assurance

6/10/02/17

This document is maintained as a Controlled Document only in the TW Metals computer system. Once printed this document immediately becomes Uncontrolled and is subject to change at any time and without notice

Certificate: 449204 01  
Customer: 0470 002  
Your Order: 140349

Mall To:  
PENN STAINLESS PRODUCTS INC.  
P.O. BOX 9001  
190 KELLY ROAD  
QUAKERTOWN, PA 18951-9001

Ship To:  
PENN STAINLESS PRODUCTS INC.  
190 KELLY ROAD  
QUAKERTOWN, PA 18951-9001

Date: 2/02/2009 Page: 1

Steel: 304

Finish: 2B

NAS Order: AN 0411727 01

Corrosion: ASTM A262/02aE, 180Bend-OK

**PRODUCT DESCRIPTION:**

STAINLESS STEEL COIL, C.R. ANNEALED & PICKLED; UNS 30400  
ASTM A240/08, A480/08a, A666/03; ASME SA240/07, SA480/07, SA666/07  
CHEM ONLY ON FOLLOWING ASTM: A276/06a, A479/01, A484/06b, A312/07  
CHEM ONLY ON FOLLOWING ASME: SA312/07, SA479/07  
AMS 5513H XMRK; MIL-S-5059D AMEND3 (X CROWN MEAS)  
NACE MR0175/01, MR0103/07; QQS766D-A X MAG PERM  
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

**REMARKS:**

Mat'l is Free of Mercury Contamination. No weld repairs.  
EN 10204:2004 3.1; QQS763F Cond A; RoHS Compliant  
Material is Free of Radioactive Contamination  
NAS Steel Making Process: EAF, AOD, & Cont. Casting  
Product Mfg. by a Quality Mgt. Sys. in Conf. w/ISO 9001:2000  
\*Melted & Manufactured in the USA; Mat'l is DFARS Compliant

Product ID #	Coil #	Thickness	Width	Weight	Length	Mark	Pieces
034WN7 A	* 034WN7 A	.0595	48.0000	29.060	COIL 2925.9	11	1

**CHEMICAL ANALYSIS** CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

HEAT	CM	C	CO	CR	CU	MN	MO	N	NI	P
4WN7	US	.0500	.1825	18.3895	.5550	1.7575	.2970	.0670	8.1365	.0315
		S	SI							
		.0014	.2875							

**MECHANICAL PROPERTIES**

Product ID #	Coil #	UTS KSI	.2% YS KSI	ELONG %-2"	Hard RB	Tail Hard	A 262 Pr A
034WN7 A	034WN7	FT 99.35	54.27	44.59	89.00	84.00	OK

**TW METALS**

TEST  
FEB 23 2009  
ACCEPTED

NAS hereby certifies that the analysis on this certification is correct and the material meets the specifications stated.

QC ENGINEER

ERIC HESS

2/02/2009

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET  
ANNEALED  
2B FINISH

SPECIFICATION: MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASTM A240  
OR ASME SA240

PART NUMBER: M304S TT GA  
GA

WHERE "TT" = GAUGE THICKNESS

EG. 16 GAUGE SS SHEET = M304S16GA

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.09375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176

REFERENCE ONLY

RELEASED  
09/06/23

B	REFORMAT DWG. ADD ASTM/ASME SPECS (ZN D8-1), ADD GAUGE REF (C8-1), REF PAR 08-020A	CP	09.06.01
A	NEW ISSUE	DS	01.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.06.01		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. B SHEET 1 OF 1 SCALE NTS	
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries